

**REMARKS/ARGUMENTS**

Claims 15 and 18-35 are pending in this application. By this Amendment, Applicant AMENDS claims 15, 19, and 20, and CANCELS claims 16 and 17.

Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose (U.S. 2002/0191757). Claims 16 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose view of Cho et al. (U.S. 7,003,583). Claims 17, 34, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Cho et al., and further in view of Ueda (U.S. 2003/0052873). Claims 18, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Miyata et al. (EP 1 475 988). Claims 19, 21, 29, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Cho et al., and further in view of Miyata et al. Claims 24-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Miyata et al., and further in view of Miyake (U.S. 2001/0019877). Claims 27 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Ueda. Claims 31-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Belrose in view of Cho et al., Miyata et al., further in view of Miyake.

As noted above, Applicant has canceled claims 16 and 17.

Applicant respectfully traverses the rejections of claims 15 and 18-35.

Claim 15 recites:

A mobile display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising:

a display section including a plurality of scanning lines arranged in a row and a plurality of signal lines arranged in a column and respectively intersecting with the scanning lines;

a voice output section;

a text code input section arranged to receive an input text code from the external host apparatus;

a video signal input section arranged to receive an input video signal from the external host apparatus;

a display control section arranged to display in the display section text corresponding to the input text code and including:

a scanning line drive circuit defining a display section drive circuit that is arranged to drive the display section by sequentially supplying scanning signals to the

scanning lines; and

a signal line drive circuit arranged to supply video signals to the signal lines, **the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code;** and

a voice output control section arranged to output voice sounds corresponding to the input text code through the voice output section; wherein

the text code input section outputs the input text code to the display control section and the voice output control section to display in the display section the text corresponding to the input text code, and to output the voice sounds corresponding to the input text code through the voice output section;

the display control section displays in the display section both an image based on the input video signal supplied to the video signal input section and the text corresponding to the input text code so that the text is superimposed on the image; and

**the first signal line drive circuit and the second signal line drive circuit share the signal lines.** (emphasis added)

Applicant has amended claim 15 to recite the features of “the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code” and “the first signal line drive circuit and the second signal line drive circuit share the signal lines.” These features were recited in now canceled claims 16 and 17.

In the outstanding Office Action, the Examiner alleged that the combination of Belrose and Cho et al. teaches a mobile display apparatus that includes a display control section. However, the Examiner admitted that the combination of Belrose and Cho et al. does not teach “a signal line drive circuit arranged to supply video signals to the signal lines, the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code” and “the first signal line drive circuit and the second signal line drive circuit share the signal lines,” as now recited in Applicant’s claim 15.

The Examiner alleged that Paragraph [0076] of Ueda teaches these features. The Examiner concluded, "It would have been obvious to one skilled in the art at the time the invention was made to incorporate the display section driving taught by Ueda into the mobile display apparatus taught by the combination of Belrose and Cho et al. because driving is well known to active matrix displays which are commonly used in cell phones."

However, even assuming *arguendo* that one of ordinary skill in the art at the time of the invention would have been motivated to combine Belrose, Cho et al., and Ueda in the manner as alleged by the Examiner, such a combination would still fail to teach all of the features currently recited in Applicant's claim 15.

Ueda fails to teach creating a single image by combining a picture of a video signal with a text image that corresponds to a text code without requiring a memory with a large capacity and an A/D or D/A conversion circuit such as is described in the Paragraph [0119] of Applicant's specification. Rather, Ueda teaches a control section 25 that supplies both a designating signal SK and display contents  $C_p$ , which include video signals, text data, and image data, that is to be displayed on a light-emitting display 11, to a driving circuit 12, as discussed in Paragraph [0076] of Ueda. As is further discussed in Paragraphs [0076] and [0077] of Ueda, the display contents  $C_p$  are supplied to a controller 14 that controls a column driver 15 and a row driver 16 so that the pixels of the light-emitting display 11 selectively emit light in response to the display contents  $C_p$ . To control the pixels of the light-emitting display 11, the row driver 16 sequentially supplies a draw-in voltage to scanning electrodes provided in the first to m-th rows according to frequency of a clock CLK supplied from the controller 14, and the column driver 15 sequentially supplies, according to the clock CLK supplied from the controller 14, a driving electric current to data electrodes that are provided in the first to n-th columns and in connection with pixels to emit light, as discussed in Paragraph [0076] of Ueda.

However, as can be clearly seen in Fig. 1 of Ueda, Ueda only teaches a single column driver 15 that is arranged to control the driving electric current that is supplied to the data electrodes of the light-emitting display 11. The light-emitting display 11 of Ueda cannot display an image that is a combination of two different signal outputs being

input from separate column drivers 15 at the same time because it only has one column driver, and thus, Ueda cannot display a single piece of image information by combining a picture of a video signal with a text image that corresponds to a text code.

Accordingly, Ueda fails to teach or suggest the features of “the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code” and “the first signal line drive circuit and the second signal line drive circuit share the signal lines” as currently recited in Applicant’s claim 15.

Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Belrose. Applicant further submits that any rejection of claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Belrose, Cho et al., and Ueda would be improper at least for the reasons discussed above.

The Examiner relied upon Cho et al., Ueda, Miyata et al., and Miyake et al. to allegedly cure the deficiencies of Belrose. However, Cho et al., Ueda, Miyata et al., and Miyake et al. also clearly fail to teach or suggest the features of “the signal line drive circuit including a first signal line drive circuit that is arranged to receive the video signal from the video signal input section and a second signal line drive circuit that is arranged to receive a video signal corresponding to the text corresponding to the input text code” and “the first signal line drive circuit and the second signal line drive circuit share the signal lines” as recited in Applicant’s claim 15. Thus, Applicant respectfully submits that Cho et al., Ueda, Miyata et al., and Miyake et al. fail to cure the deficiencies of Belrose described above.

Claim 20 recites:

A mobile display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising:  
a display section;  
a voice output section;  
a video signal input section arranged to receive an input video signal from the external host apparatus;  
a display control section arranged to display in the display section an image

based on the input video signal;

**a text recognizing section arranged to extract a text image from the input video signal and convert the text image into a text code; and**

a voice output control section arranged to output voice sounds corresponding to the text code through the voice output section; wherein

the video signal input section outputs the input video signal supplied from the external host apparatus to the display control section and the text recognizing section; and

**the text recognizing section converts a text image of the input video signal supplied from the video signal input section into a text code and outputs the text code to the voice output control section so that an image corresponding to the input video signal is displayed in the display section, and the voice sounds corresponding to the text code are outputted from the voice output section.** (emphasis added)

Applicant has amended claim 20 to recite the features of “a text recognizing section arranged to extract a text image from the input video signal and convert the text image into a text code” and “the text recognizing section converts a text image of the input video signal supplied from the video signal input section into a text code and outputs the text code to the voice output control section so that an image corresponding to the input video signal is displayed in the display section, and the voice sounds corresponding to the text code are outputted from the voice output section.” Support for these features is found, for example, in paragraphs [0017], [0032], and [0119] of Applicant’s specification.

The Examiner admitted that Belrose does not teach or suggest “a text recognizing section arranged to extract a text portion from the input video signal and convert the text portion into a text code.” However, the Examiner alleged that Figs. 1 and 3 of Cho et al. teach this feature because it is well known for camera phones to receive video/picture messages. The Examiner concluded that “It would have been obvious to one skilled in the art at the time the invention was made to substitute the camera phone functionality of Cho into the mobile display apparatus taught by Belrose because camera phones are well known in the cell phone art.”

However, even assuming *arguendo* that one of ordinary skill in the art at the time of the invention would have been motivated to combine Belrose and Cho et al. in the manner as

alleged by the Examiner, such a combination would still fail to teach all of the features recited in Applicant's claim 20.

Cho et al. fails to teach extracting text from image data. Rather, Cho et al. teaches a data generator 110 that includes a video signal inputting unit 111, an audio signal inputting unit 113, and a text signal inputting unit 115, as shown in Fig. 3 and discussed in column 6, lines 47-61 of Cho et al. The system of Cho et al. further includes a data combiner 117 that is arranged to combine one of audio data from the audio signal inputting unit 113 and text data from the text signal inputting unit 115 with video data from the video data inputting unit 111 to create combined data, as discussed in column 6, lines 62-67 of Cho et al. This combined data is then input to a data analyzer which separates the video data and audio data or text data such that the video and text data will be displayed by a video processor, and the audio data will be output by an audio signal processor, as discussed in column 7, lines 22-31 of Cho et al. Nowhere in Cho et al. is there any teaching or suggestion of: 1) extracting a text image from a video signal, 2) converting the text image into a text code, and then 3) outputting the text code to a voice output section so that a voice output corresponding to the text code is generated.

Instead of considering each feature of Claim 20, the Examiner has improperly reduced the features of "a video signal input section" and "a text recognizing section" to the idea of camera phone. The Examiner is reminded that a claimed invention must be considered "as a whole." *Medtronic, Inc., v. Cardiac Pacemakers, Inc.*, 220 USPQ 97, 99-100 (Fed. Cir. 1983). Rather than considering the invention "as a whole," the Examiner improperly reduced Applicant's claimed invention to the "idea" of a camera phone. Reducing a claimed invention to an "idea" and then determining patentability of that "idea" is error. *Jones v. Hardy*, 220 USPQ 1021, 1024 (Fed. Cir. 1984).

Thus, contrary to the Examiner's allegations, the combination of Belrose and Cho et al. clearly fails to teach or suggest the features of "a text recognizing section arranged to extract a text image from the input video signal and convert the text image into a text code" and "the text recognizing section converts a text image of the input video signal supplied from the video signal input section into a text code and outputs the text code to the voice output control

section so that an image corresponding to the input video signal is displayed in the display section, and the voice sounds corresponding to the text code are outputted from the voice output section” as recited in Applicant’s claim 20.

The Examiner relied upon Ueda, Miyata et al., and Miyake et al. to allegedly cure the deficiencies of Belrose and Cho et al. However, Ueda, Miyata et al., and Miyake et al. also clearly fail to teach or suggest the features of “a text recognizing section arranged to extract a text image from the input video signal and convert the text image into a text code” and “the text recognizing section converts a text image of the input video signal supplied from the video signal input section into a text code and outputs the text code to the voice output control section so that an image corresponding to the input video signal is displayed in the display section, and the voice sounds corresponding to the text code are outputted from the voice output section” as recited in Applicant’s claim 20. Thus, Applicant respectfully submits that Ueda, Miyata et al., and Miyake et al. fail to cure the deficiencies of Belrose and Cho et al. described above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Belrose and Cho et al.

In view of the foregoing remarks, Applicant respectfully submits that claims 15 and 20 are allowable. Claims 18, 19, and 21-35 depend upon claims 15 and 20, and are therefore allowable for at least the reasons that claims 15 and 20 are allowable.

In view of the foregoing remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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